

TABLE NO-39
Norms For Recreational Facilities

Sl.No	Category	Population Served per unit	Area Requirement (Ha)
1	Housing Area Park	5000	0.50
2	Neighbourhood Park	15000	1.00
3	Community Park	1 Lakh	5.00

TABLE NO-40
Norms for Sports Facilities

Sl.No.	Category	Population Served per unit	Area Requirement (Sq. M)
1	Residential unit play Area	5000	5000
2	Neighbourhood Play Area	15000	1.5
3	Town sports centre	1 Lakh	8.00

7.7 Beautification of Major Transit Zone

Doomdooma has emerged as a major transit zone for tea, and fruits like orange. Tea of Doomdooma transit to all over India. So, it is very much essential to beautify and upgrade the major traffic points like bus stand, railway station, market area of this emerging transit zone of upper Assam.

7.8 Road Signage and Street Furniture

Road signs are signs erected at the side of or above roads to give instruction or provide information to road users. The earliest signs were simple wooden or some milestones. But in course of time, many states of India have been adopting pictorial signs or otherwise simplified and standardized their signs to overcome language barriers and enhance traffic safety, such pictorial signs use symbols in place of words.

Street furniture is a collective term for objects and pieces of equipment installed on streets and roads for various purposes. It included Benches, traffic barriers, bollards post boxes phone boxes, street lamps, traffic lights, traffic signs, bus stops, taxi stand, public lavatories fountains, public sculptures and waste receptacles an important consideration in the design of street furniture is how it affects road safety.

In Doomdooma Master Plan Area existing road signs and furniture are inadequate for increasing traffic and those are not also scientifically designed.

So, the plan suggests to authority concern to take steps for the installation of warning, priority, prohibitory, mandatory, information, facilities, service, direction, position and indication signs in the roads of Doomdoooma town, so that local people as well as outsiders can be benefitted and road safety can be maintained.

In Doomdoooma master plan area presently there is no street furniture necessary for the public. The concern authority should take steps for the construction of public lavatories at important public places and installation of benches in the park and public places, post boxes, bus stop, taxi stand, waste collectors etc.

This plan recommends for preparation and execution of a city beautification plan covering street light, traffic signal etc. that will enhance the beauty of this resource full town.



7.9 Rivers and Urbanization

Historically settlements have grown along the rivers. Most of the towns in India were developed around rivers because they played a major role in

sustaining the town itself. River provides water, support natural processes – like flood prevention and also provide rich bio-diversity which are vital lung spaces for the town. These are extremely vital to the towns as plants for example: have a cooling effect, helping to lower surface and air temperatures by providing shade and releasing moisture into the air. They also manage floods as most of the plant species that grow on river banks absorb a lot of water, reducing flood energy which is a threat to people and buildings. Rivers also help to connect communities create opportunities for recreation and bring people together.

7.9.1 River Centric Planning

The river Doomdooma river flows south - east of Doomdooma master plan area. There is a need for new thinking for 'River towns. There is need for the residential of these towns to ask "what can we do for the rivers?' Hearing from experiences of Namami Brahmaputra, it is seriously felt that a new river centric thinking in planning for towns situated on the banks of rivers is the need of the hour. The river health needs to be mainstreamed into urban planning process by development of Urban River Management Plans. Towns should be responsible for rejuvenating their rivers. It has to be done not just with the regulatory mindset but also with development and facilitator outlook.

7.9.2 Abstract

Most of the towns in Assam are river centric and Doomdooma is not exception of that, which signifies that the interactions between an urban center and its rivers are complex, reciprocal and collaborative. With urbanization and unplanned extraction of resources, it has been observed that the river's morphology has been changed, thus plummeting its capacity to deliver ecosystem services, further adding excess runoff and diffuse pollution loads. On the other hand, river floods can damage the town in return. The floods had major short as well as long term impacts on the lives of people residing in the affected areas.

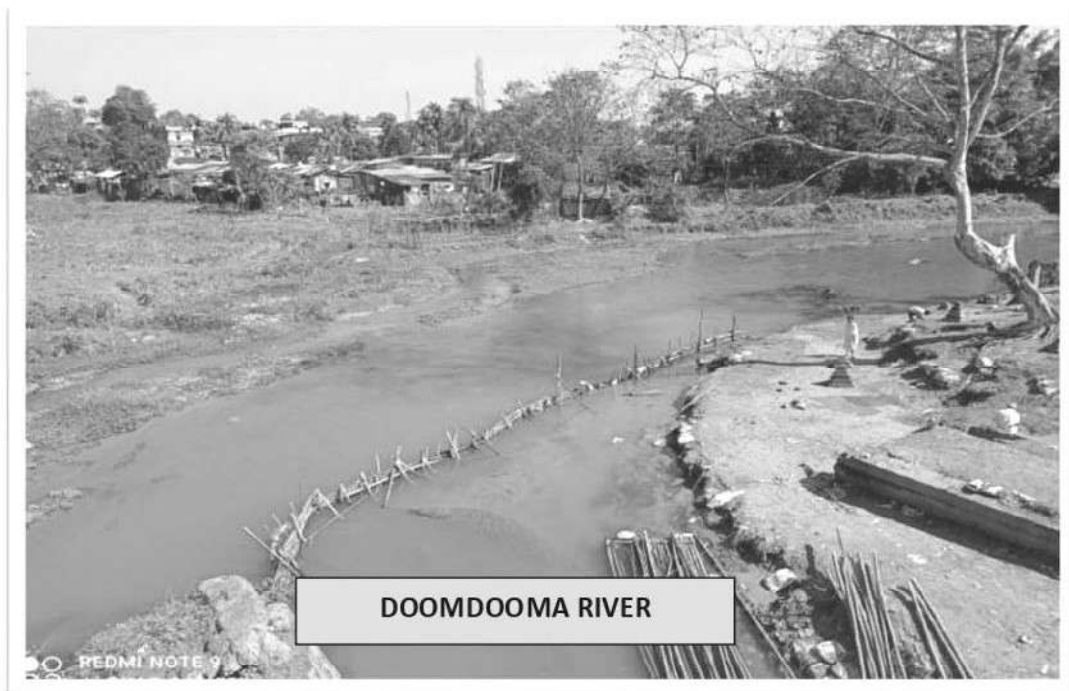
Nevertheless, there are potential aids in both directions. By good management and strict guidelines, a town with its residents can achieve increased land values, acceleration in economic efficiency, recreational aesthetic worth which can increase further environmental sustainability of the town with the development of the river system.

7.10 Introduction

The river Doomdooma passing through Doomdooma town is a lifeline of the town. But due to unprecedented urbanization and household activities, Doomdooma urban area have also witnessed construction activities including

random and unauthorized residential development which have may degraded the overall natural environment of flood plains of river Doomdooma.

In some places in the banks of river Doomdooma erosion is creating a major problem and its changes course frequently and therefore necessary steps to be taken for flood management. Even some place like ward no.1, 8, 9, 10 are flood prone area.



7.10.1 Need for Urban River Zone Conservation and mainstreaming it with Urban Planning.

Due to the pressure of urbanization and population growth in Doomdooma, the river front areas of Doomdooma river are getting degraded in terms of effecting water quality, limited access etc. and are often found functioning as open sewers or dumping ground.

Waterfronts have a long history of changing types and levels of uses and are now coming back into potentially thriving and layered public use. As such, the Govt. has taken initiative for river front development to improve the overall riverine environment. Waterfronts can be developed with different functioning and activities like parklands, recreational public place and as a retail or tourist centre. Studies also suggest that mixed use development along the waterfront is ideally suitable and beneficial; both for the community and town authorities as it not only provides wide public access to the riverfront but also contribute in the economic development of the town. As such, this plan suggests for the development of river front of the river Doomdooma by the concerned authority,

so that the people of Doomdooa can able to consume the fruit of river Doomdooa.

Presently, water resource department has taken one and half kilometer erosion and flood protection measures on Doomdooa river towards south- west of Doomdooa town.



7.10.2 Objectives and Purposes of River Centric Planning

Broad objectives of River Centric Planning and Urban River Management are: -

1. To highlight the need for River Centric Planning and Urban River Management Plans for the guidance of town authority.
2. To attempt a framework for river water conservation and development of river waterfronts.
3. To recommend suitable planning strategies for river water management and river front development as a part of sustainable urban planning and development to transform the riverfront as a place where people can live,

work and utilize and give them back the same riverfront through improvements in public access and addition of green spaces along river banks bringing out a multi-purpose riverfront.

4. To recommend development regulations / zoning for river front developments.

Sustainable urban planning and development has to take into consideration that river Doomdooma at Doomdooma region requires prioritized attention to ensure that the river is clean, free of any untreated discharge of waste water, erosion free and the flood plains are not only protected from the construction activities but also becomes the hub of recreational activities without compromising the overall natural atmosphere of not only river but of air, sound and wildlife.

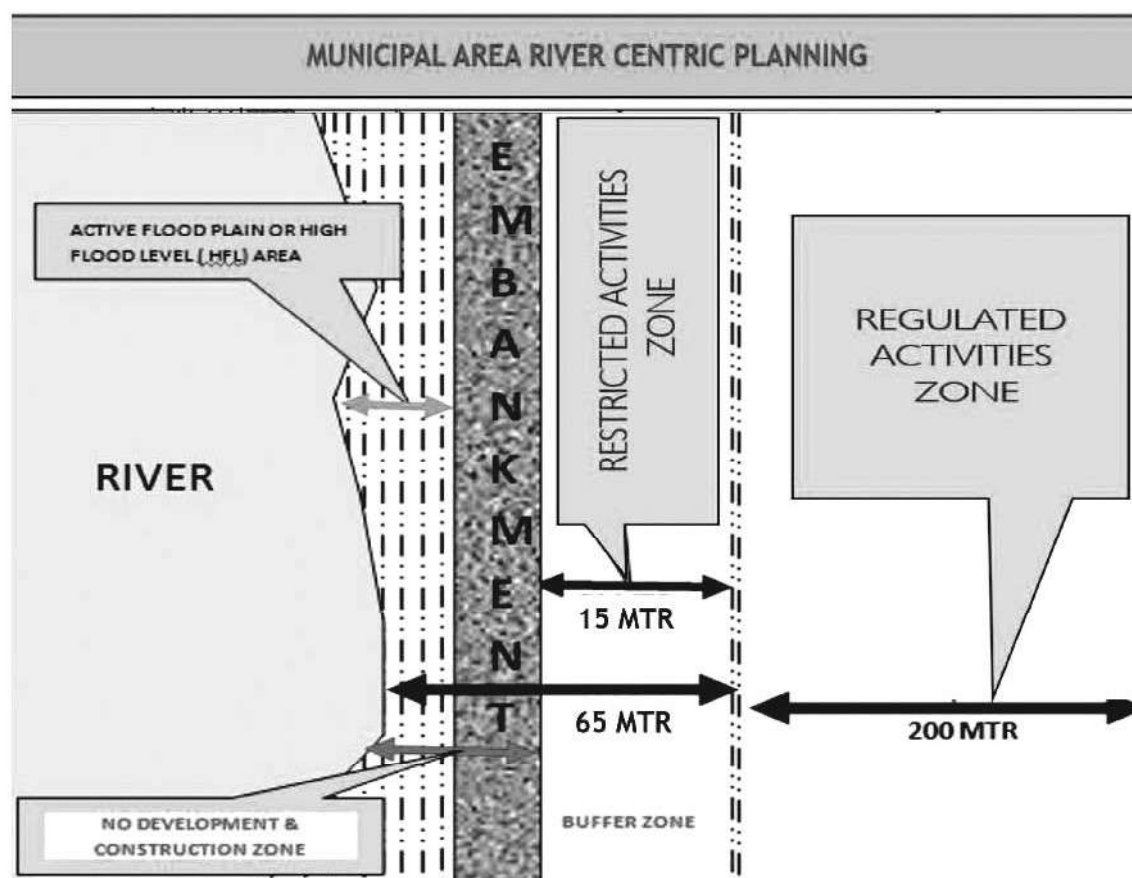
7.11 “River Zone” and its Regulating Intents

As per River Centric Master Planning and Urban River Management and Planning guidelines of Ministry of Housing & Urban Affairs, Govt. of India: “The concept of flood plain zoning is to regulate land use in the flood plains to –

- (a) Restrict damage to land surface and built-up developments caused by floods.
- (b) Restrict environmental damages to the river and its abutting ecologically sensitive zones arising out of the land-use occupancies in such zones.”

This plan considers the following river regulation zones of Doomdooma river at Doomdooma depending upon the permission granted to carry out developmental activities.

1. **No development Zone and:** *up to 50 meters from the High Flood Line (HFL) in past 50 years NDCZ (No Development and Construction Zone).*
2. **Restricted Activities Zone (RAZ):** This zone is subjected to frequent flooding and most vulnerable with adverse impacts on human activities. In case the presence of embankments in the floodplain area, this zone will extend from the outer side embankment upto 15 m further in municipal area and 50 mtr outside municipal area.
3. **Regulated Activities Zone:** This zone includes the floodplain areas which are less frequently affected by floods and lie further from the river. Its limit extends from the outer limits of RAZ zone upto 200 m further. Few restricted developments are recommended in alignment with activity recommendations as per zoning regulations.

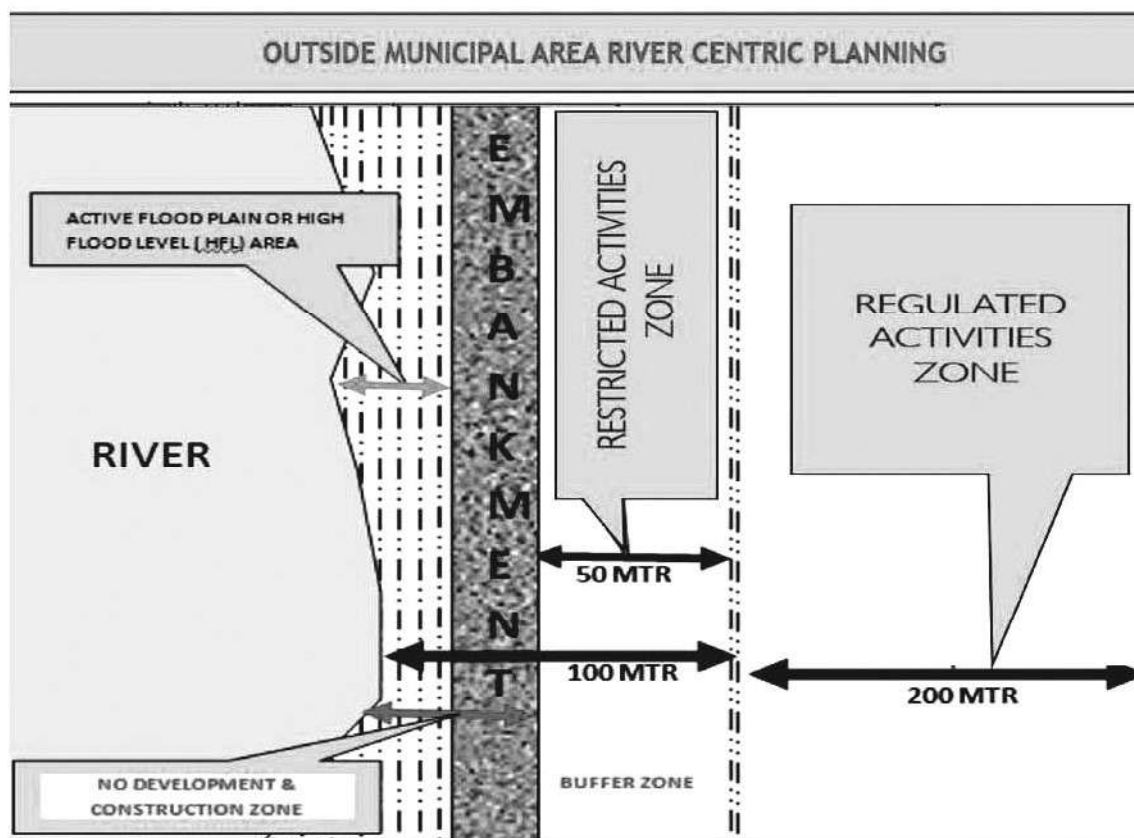


(River Zone of Doomdooa river)

MUNICIPAL AREA		
No Development & Construction Zone		NDCZ will be covered Active Flood Plain or HFL along with embankment.
Restricted Activities Zone (RAZ)		<ul style="list-style-type: none"> ➤ 15 mtr buffer zone from existing embankment ➤ Activities that don't degrade the environment is permitted. ➤ Construction of single-story building, parks, playground etc. ➤ Ecologically sensitive and fragile watersheds, heritage sites, endangered species, national parks, biosphere reserves, wildlife sanctuaries etc. included under NDCZ and RAZ.
Regulated Activities Zone or Medium Impact Zone (MIZ)		<ul style="list-style-type: none"> ➤ From outer limit of RAZ to 200 mtr. ➤ Authority concern will regulate the environmental conservation and preservation, including water bodies, forests and drains, parks, playgrounds, burial and crematoria. ➤ Activities permitted: - traditional grazing, capture fishing, organic farming, discharge of treated domestic waster waters, withdrawal of

	<p>ground water using hand pump, recreational activities etc.</p> <p>➤ Activities not permitted: - bundling, dumping of solid waste, construction of new embankment, land reclamation, storage of inflammable and toxic materials, and withdrawing water for commercial purpose other than hydro power and irrigation projects are prohibited.</p>
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Source:- River Centric Planning- 2020 & Prop. Zone by T&CP, Dibrugarh



OUTSIDE MUNICIPAL AREA	
No Development & Construction Zone	NDCZ will be covered Active Flood Plain or HFL along with embankment.
Restricted Activities Zone (RAZ)	<ul style="list-style-type: none"> ➤ 50 mtr buffer zone from existing embankment ➤ Activities that don't degrade the environment is permitted. ➤ Construction of single-story building, parks, playground etc. ➤ Ecologically sensitive and fragile watersheds, heritage sites, endangered species, national parks, biosphere reserves, wildlife sanctuaries etc. included under NDCZ

Regulated Activities Zone or Medium Impact Zone (MIZ)	<p>and RAZ.</p> <ul style="list-style-type: none"> ➤ From outer limit of RAZ to 200 mtr. ➤ Authority concern will regulate the environmental conservation and preservation, including water bodies, forests and drains, parks, playgrounds, burial and crematoria. ➤ Activities permitted: - traditional grazing, capture fishing, organic farming, discharge of treated domestic waster waters, withdrawal of ground water using hand pump, recreational activities etc. ➤ Activities not permitted: - bundling, dumping of solid waste, construction of new embankment, land reclamation, storage of inflammable and toxic materials, and withdrawing water for commercial purpose other than hydro power and irrigation projects are prohibited.
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Source:- River Centric Planning- 2020 & Prop. Zone by T&CP, Dibrugarh

7.11.1 Approach to River Zone planning through Master / Zonal Development Plans

The following points to be considered by the competent authority while planning developments in River Zones:

- i. Proposed development should reduce pollution within the zone and regenerate a healthy environment.
- ii. Any kind of development is to be safe from flooding even at peak flow level.
- iii. The resource requirement be partially mobilized by compatible development of land in the zones without compromising on quality of the environment.
- iv. Identifying the stretches to be developed on priority for being prone to encroachments and do not require large financial resources.
- v. To mitigate the constraints of land for public and semi-public uses in the adjoin areas / zones.

CHAPTER -8**8. LAND USE PLAN****8.1 Developable and Non – Developable Area of the Master plan**

Urban growth and development are often conditioned by the natural landscape like hills, water bodies, forests and manmade impediments like railway line, major roads & canals etc. It is also conditioned by the resources and technology employed in overcoming the impediments and constraints.

Existing Doomdoo master plan is mainly situated in flat land. Except Doomdoo river there is no other physical feature acting as a constraint for development. The soil is very fertile and good vegetation and tea garden is observed in the region.

The quality of urban life and its functional efficiencies are governed by its land-use pattern. In order to understand and analyses systematically the functional relationship between various uses particularly the place of living, business place, industrial activity, education, recreation,

agricultural activity etc., a detail land-use survey was conducted during the year 2020-21 to estimate the present and future need of the urban area as well as master plan area. Doomdoo master plan covers an area of 5859 hectare (58.59 Sq.km), out of which developed area is 1538 hectare (15.38 sq.km.) i.e., 26.25 % of the total plan area and non-developed area is 4321 hectare (43.21 sq.km.) i.e., 73.35 % of the total plan area.



8.2 Existing Land Use

The existing land use and the areas occupied by each use in Doomdooa Master Plan Area is shown in the following table:

TABLE NO-41
EXISTING LAND USE - DOOMDOOMA MASTER PLAN AREA IN 2020-21

Use		Doomdooa Master Plan Area in hectare	Percentage of the Doomdooa Master Plan Area (%)	Percentage of the total developed Area (%)
Residential		892	15.22	58.00
Commercial		48	0.82	3.12
Industrial		39	0.67	2.54
Public & Semi Public		97	1.66	6.31
Recreation		27	0.46	1.76
Circulation		132	2.25	8.58
Railways		10	0.17	0.65
Defence		293	5.00	19.05
Total developed area (A)		1538	26.25	100.00
Agriculture		1128	19.25	
Green belt	Tea Estate	3028	51.68	
	Urban Forestry	52	0.89	
Open Space		41	0.70	
Water Bodies		72	1.23	
Total Undeveloped Area (B)		4321	73.75	
Grand Total Plan Area (A+B)		5859	100.00	

Source: - Town & Country Planning, Dibrugarh Land Use Survey 2020-21.

Figure-33
Existing Land Use Distribution in Doomdooma Master Plan

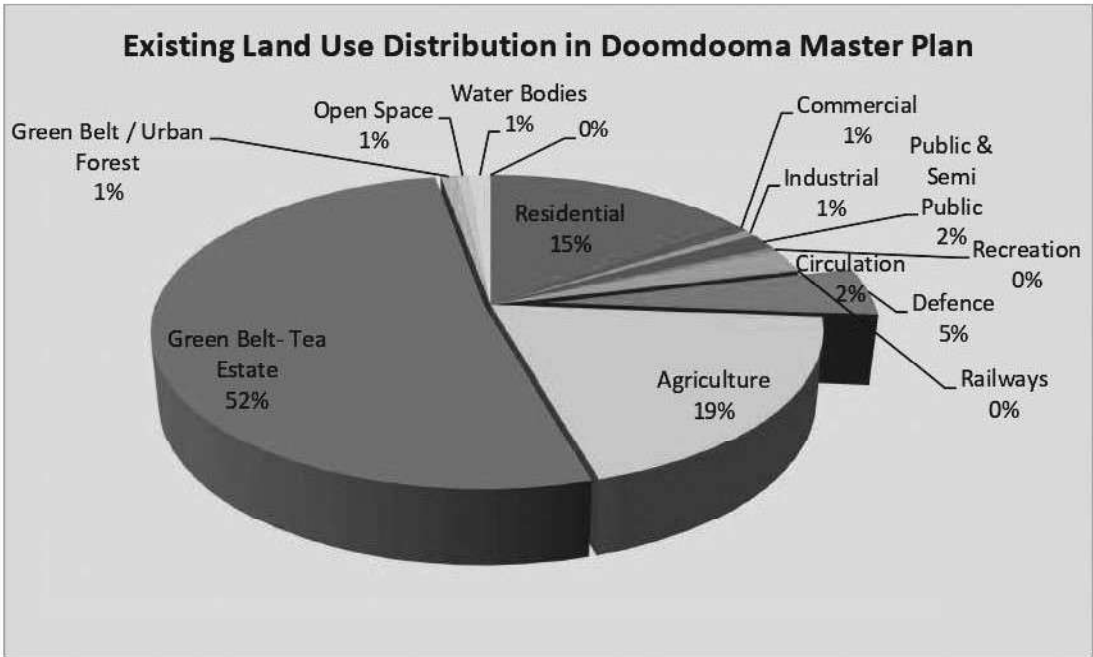
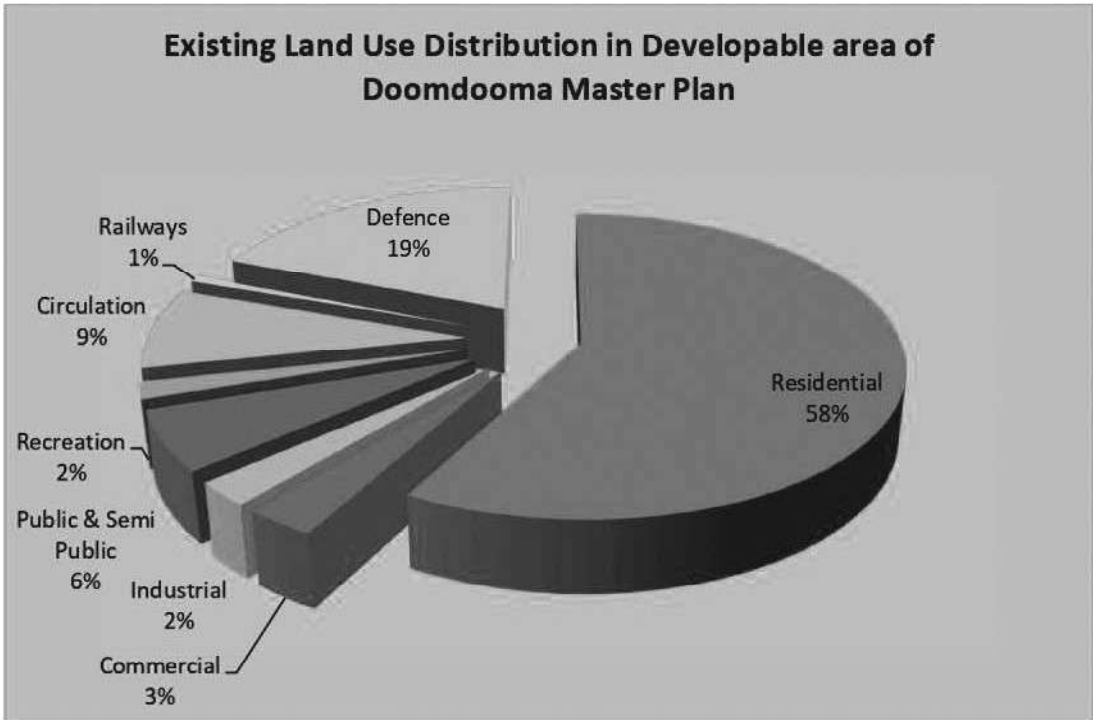


Figure-34
Existing Land Use Distribution in Developable area of Doomdooma Master Plan



In Doomdooma master plan area, 892 hectares of land (15.22% of master plan area and 58% of total developed area), is use for residential purposes.

In Doomdooma master plan area, 48 hectares of land (0.82% of master plan area and 3.12% of total developed area) is used for commercial and business purposes. The business area in Doomdooma spread over both side of NH-15 from south to north, and in Nehru Road, Azad Road, Netaji Road, etc. towards Philobari road. Vegetable, grocery and food market located in compact manner at Doomdooma bazar. The roads being narrow, no provision of parking area in market places and on road parking of all types of vehicles including commercial vehicles at Doomdooma Gandhi Chowk creates traffic congestion in the area.

In the master plan area 39 hectare of land (0.67% of master plan area and 2.54% of total developed area) is used as industrial activities.

The land use for Public and Semi-public purposes including educational institutions, government offices, health care etc. are 97 hectares of land (1.66% of master plan area and 6.31% of total developed area). The land uses under this had is scattered all over the master plan area.

In master plan area, 27 hectares of land (0.46% of master plan area and 1.76% of total developed area) is used for recreational purposes. In Doomdooma for outdoor games 1 stadium, 2 playgrounds, besides there are 4 fields for outdoor games of own educational institutions such as Donbosco, St. Mary's, Doomdooma College, Doomdooma Girl's High School field and various other open spaces fulfil the recreational activity of the people of Doomdooma.

Transportation & circulation network of a town or planning area plays an important role and affects immensely the economic and socio-cultural life of the planning area. A well-developed road network can provide answer to many problems of urban life. Accordingly, in DMPA, the land use for circulation purposes is 132 hectares of land (2.25% of master plan area and 8.58% of total developed area).

Railways occupy only 10 hectares of land (0.17% of master plan area and 0.65% of total developed area). The railway track is passing through the heart of the town.

Defence constitutes an area of 293 hectare of land (5% of the master plan area and 19.05% of total developed area).

In DMPA, land use for agricultural purposes is 1128 hectare of land (19.25% of the master plan area). Agricultural activities mainly take place in Athengia Gaon, Bisakupi gaon, Daimukhiya gaon, Kaliapani gaon, Manuh khowa gaon, Ouguri gaon, Doomdooma Pather and Fatikjan Gaon.

In the map of India, Doomdooa occupy the place of tea town and this has been proved in the master plan of Doomdooa because tea garden areas occupy 3028 hectare of land (51.68% of master plan area). In the master plan area, there are 20 tea gardens and most of them have their own tea factories.

- Green belt/ Urban Forestry covers an area of 52 hectare of land (0.89% of the master plan area).
- Open space constitutes an area of 41 hectare of land (0.70% of the master plan area). Small size open space area scattered all over the master plan.
- Water bodies constitute an area of 72 hectare of land (1.23% of the master plan).

KEY ISSUES / SHORTCOMINGS

1. Hierarchy of road network is not found, narrow road network with restricted capacity, traffic congestion due to no. of railway crossings and loss of productivity etc.
2. Encroachment on National Highway land & Railway land.
3. The parking spaces are inadequate, inconvenience to the pedestrian due to lack of footpath.
4. Illegal vending sometimes reduces the actual width of the road to half only.



5. Coverage of drainage system is not satisfactory.
6. Lack of adequate social infrastructure and recreational facilities.
7. Non-existence of notified industrial area.
8. Lack of proper solid, Hospital and E waste disposal and management system.
9. Present dumping site creates unhygienic conditions.

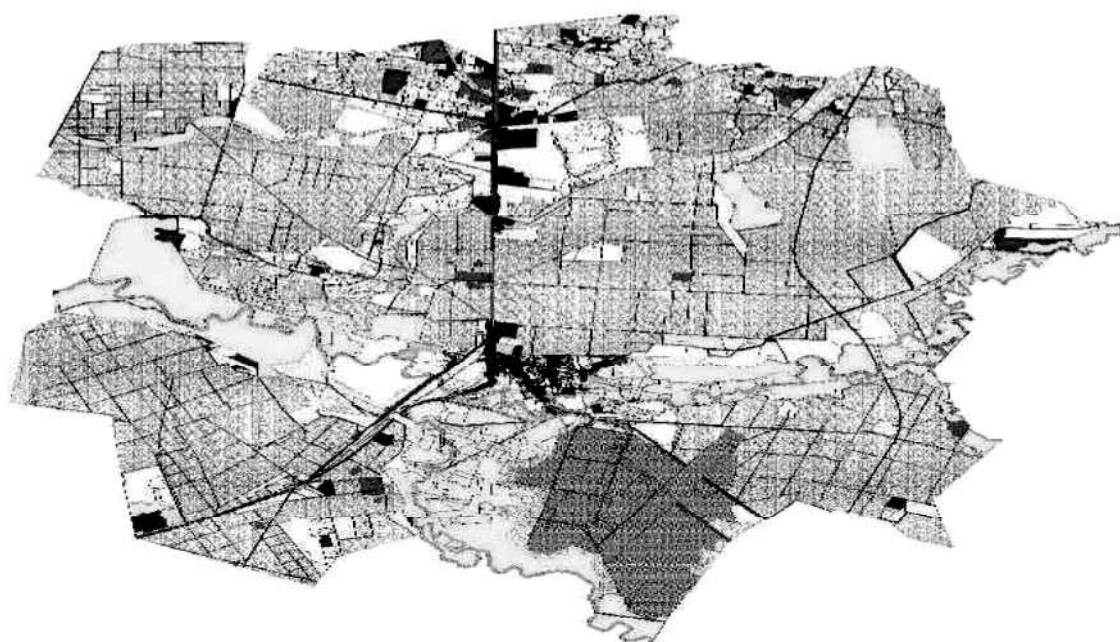


STRENGTH

- Well connected by road and railway.
- Prosperous economy.
- Unique natural beauty of tea gardens.
- Glorious history.
- Diverse culture and social harmony.
- Defence.
- Tea Tourism.

8.3 Proposed Land use:

Land use planning has a bearing on the expansion of the town and put pressure on outer growth area and in rural areas. A change in urban economic function changes its population growth. The decision to set up administrative block, commercial activities, industrial estate, educational institution, health care as well as any government policy to stimulate the urban economy accounts for population growth as well as create opportunities for employment and business expansion.



The proposed Doomdooma Master Plan covers an area of 5859 hectare (58.59 sq.km.), out of which about 2498 hectare (42.64%) of land is proposed to be developed up to the year 2041 for a projected population of 110993 persons.

The following table shows the proposed distribution of land use in Doomdooma Master Plan Area up to 2041.

TABLE NO-42
PROPOSED LAND USE - DOOMDOOMA MASTER PLAN AREA UPTO 2041

Use		Doomdoooma Master Plan Area in hectare	Percentage of the Doomdoooma Master Plan Area (%)	Percentage of the total developed Area (%)
Residential		1339.62	22.86	53.63
Commercial		98	1.67	3.92
Industrial		83	1.42	3.32
Public & Semi Public		208	3.55	8.33
Recreation		213	3.64	8.53
Circulation		251	4.28	10.05
Railways		10	0.17	0.40
Defence		293	5.00	11.73
Composite Uses		2.38	0.05	0.09
Total developed area (A)		2498	42.64	100.00
Agriculture		320	5.46	
Green belt	Tea Estate	2876	49.09	
	Urban Forestry	52	0.89	
Open Space		41	0.70	
Water Bodies		72	1.23	
Total Undeveloped Area (B)		3361	57.36	
Grand Total Plan Area (A+B)		5859	100.00	

Source: - Town & Country Planning, Dibrugarh Land Use Survey 2020-21.

Figure-35
Proposed Land Use Distribution in Doomdooma Master Plan

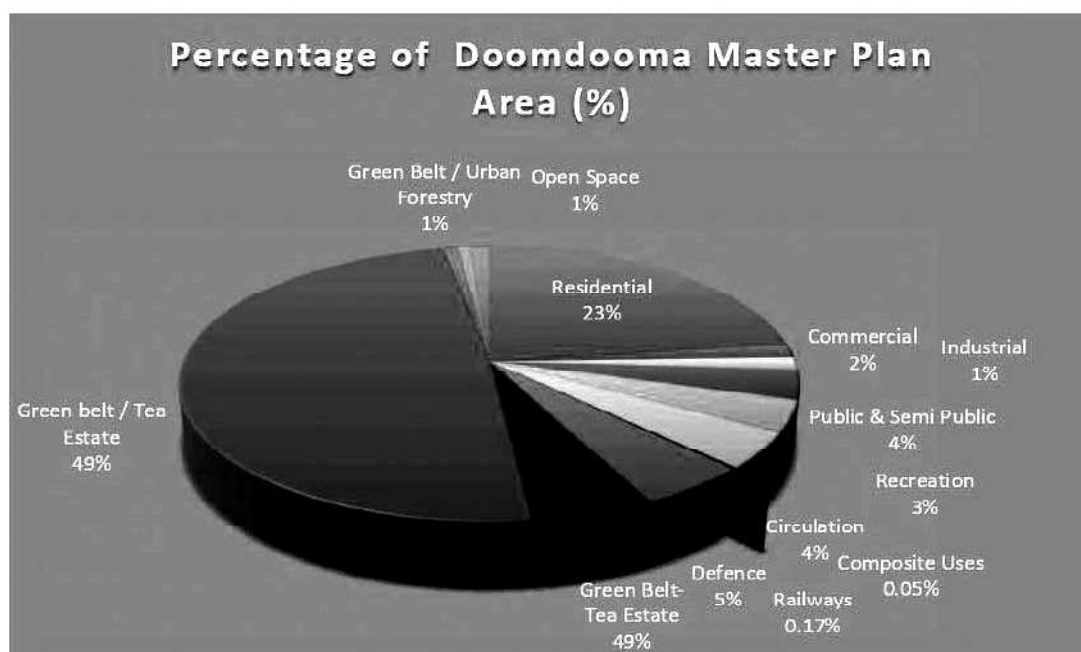
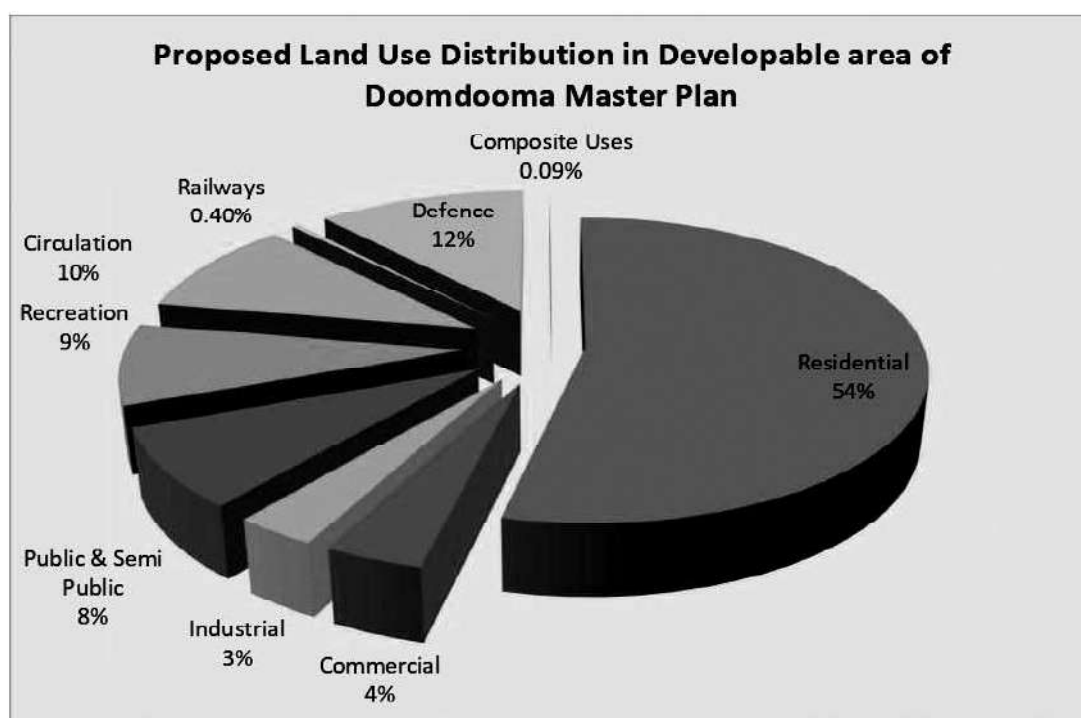


Figure-36
Proposed Land Use Distribution in Developable area of Doomdooma Master Plan



An area of 1339.62 hectare of land (22.86% of the master plan area and 53.63% of the total developable area) has been earmarked for residential use for projected population of 110993 persons of Doomdooma master plan area and rural areas up to the year 2041. It is presumed that a part of the total projected population will be residing in the mixed used areas. In the proposed land use plan, the population density of the master plan area in the year 2041 will be 1894 persons per sq.km. The residential density of DMP area for the year 2041 will be 16.54 Dw/per hec. The following gross residential density is recommended in the plan: -

1. Low density : up to 50 persons per hectare
2. Medium density : 50 - 120 persons per hectare
3. High density : 120 - 200 persons per hectare

Land earmarked for commercial activities is 98 hectares of land (1.67% of the master plan area and 3.92% of the total developable area).

Land earmarked for industrial activities is 83 hectares of land (1.42% of the master plan area and 3.32% of the total developable area).

In the plan the land earmarked for Public and Semi-public activities increases to 208 hectares of land (3.55% of the master plan area and 8.33% of the total developable area) for establishing Govt. offices and education institution for the growing population.

In the same way to meet the demand of growing population, the area earmarked for recreation facilities has also been increased to 213 hectares of land (3.64% of the master plan area and 8.53% of the total developable area) for establishing parks and indoor game facilities.

In the proposed land use plan, the land earmarked for circulation is 251 hectares of land (4.28% of the master plan area and 10.05% of the total developable area). In the plan new roads has been proposed to link up the sub-arterial and other road to arterial road. Besides for the efficiency of circulation pattern taxi stand and truck terminus has also been proposed in the plan.

The area earmarked for Composite uses is 2.38 hectares of land (0.05% of the master plan area and 0.09% of the total developable area).

The plan proposes open space of 41 hectare i.e. 0.7 % of the planning area and the plan earmarked open space under the category of no construction zone. An area of 72 hect. i.e. 1.23 % of the planning area has been earmarked as water bodies in the proposed master plan map. **The plan proposes 15mtr buffer zone or no construction zone along natural water channel, ponds, river and wetland inside municipal area and 50 mtr. outside municipal area.**

CHAPTER- 9

9. PROPOSED PROJECT, BRIEF AND TENTATIVE FUNDING SOURCE

9.1 Identify Priority Sectors and Project

The plan proposals for Doomdooma master plan area spread up to 2041. It is quite obvious that the natural development will continue and the private developers will play an important role in this respect. As such, the private development is encouraged in conformity with the master plan. It is strongly recommended to stop unplanned and sporadic developments but to encourage balance planned and sustainable development where the provision for necessary physical infrastructure and socio-economic amenities are economically made possible. There are some immediate necessities as pointed out by the various stake holders, which are to be taken up as priority schemes for the master plan area which is listed below:

SHORT TERM PROPOSALS

1. Installation of a huge National Flag at strategic location of the town to increase the cityscape of the town.
2. Improvement of roads, footpath with street lights and demarcation of notified parking area.
3. Improvement of existing traffic signal points and setting up new ones and road signage.
4. Notification for walking track near Doomdooma College and Girl's High School Field.
5. Protection & preservation of low lying areas, natural channels & ponds.
6. Preparation of drainage master plan.
7. Selfie Point at Bagjan Road, Old A.T. Road near Doomdooma river & GNB Road
8. Improvement of existing market and weekly market into a well-planned, people friendly business hub.
9. Construction of Vendor and Hawker market.
10. Improvement of public bus stand and ASTC bus stand.
11. Improvement of existing hospitals and dispensaries.
12. System of regular collection and disposal of garbage in the master plan area by the concerned authority.
13. Welcome Gate at the entry point of Doomdooma depicting as a Tea town.
14. Proposal for public toilet in strategic locations and market areas in the town.
15. Proposal for guest house.
16. Provision for vending zone in master plan area.

Long Term Proposals

1. Widening of roads as per IRC guidelines and provision of utility duct.
2. Railway overbridge at NH-15
3. Proposal for cycle track
4. Proposal for bridge at river Doomdooma
5. Solid waste management plant
6. Preparation of drainage master plan
7. Construction of indoor stadium and swimming pool

8. Construction of town hall, auditorium, library and children park
9. Construction of truck stand
10. Construction of tea museum
11. Construction of administrative block with park
12. Construction of tourist lodge and naturopathy centre
13. Construction of Effluent treatment plant
14. Construction of Faecal sludge treatment plant
15. Proposal for fuel station
16. Proposal for gas station
17. Proposal for industrial zone
18. Proposal for River front development
19. Proposal for improvement of cremation and burial ground
20. Proposal for children home
21. Proposal for installation of fire hydrant at market place and strategic location of the town.

In the first phase, the schemes like widening and improvement of roads, construction of new roads, provision for required spaces for parks, playgrounds and parking places and improvement of commercial and market areas including existing market, daily bazaar etc. can be taken up. The Doomdoooma Municipal Board has to play an important role visioning with other Govt. agencies in formulation and execution of such schemes in the master plan area. All the above schemes need to be carried out to make the plan area in to healthy place of living.

In addition to the above, the plan also recommends for the establishment of health centre, construction of administrative block for all Govt. offices under one roof.

9.2 Fund Requirement for Each Sector/ Project

Fund requirement for each sector project will be finalized by the ULB & concerned line department after preparation of detailed project report as per Govt. instruction.

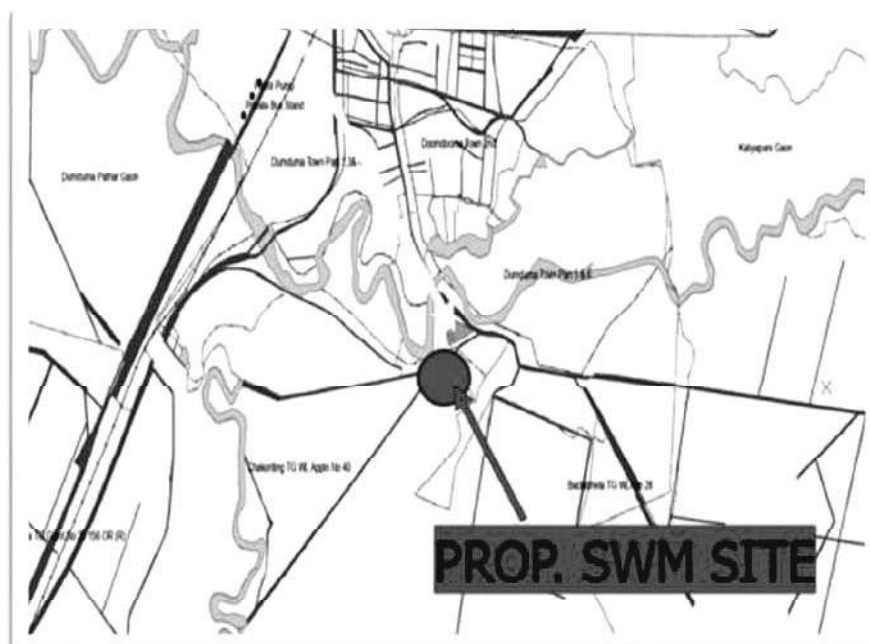
9.3 Identify Land Site for Proposal

The plan finds the following sites are suitable for taking up the proposals in accordance with the existing trends of growth as well as for balanced development.

- (1) Indoor Stadium & Swimming pool: at Doomdoooma Stadium Field



- (2) Solid Waste Management System :- behind existing dumping site at Dhoomdooma town sheet Pt 1, 3 & 4.



- (3) Administrative Block & Park: near Doomdooma Circle Office



(4) Flyover & ROB: -

(A) ROB at junction point of NH-15 and road leading to Doomdooma market.



(B) Flyover at Old A.T Road on Doomdooma river



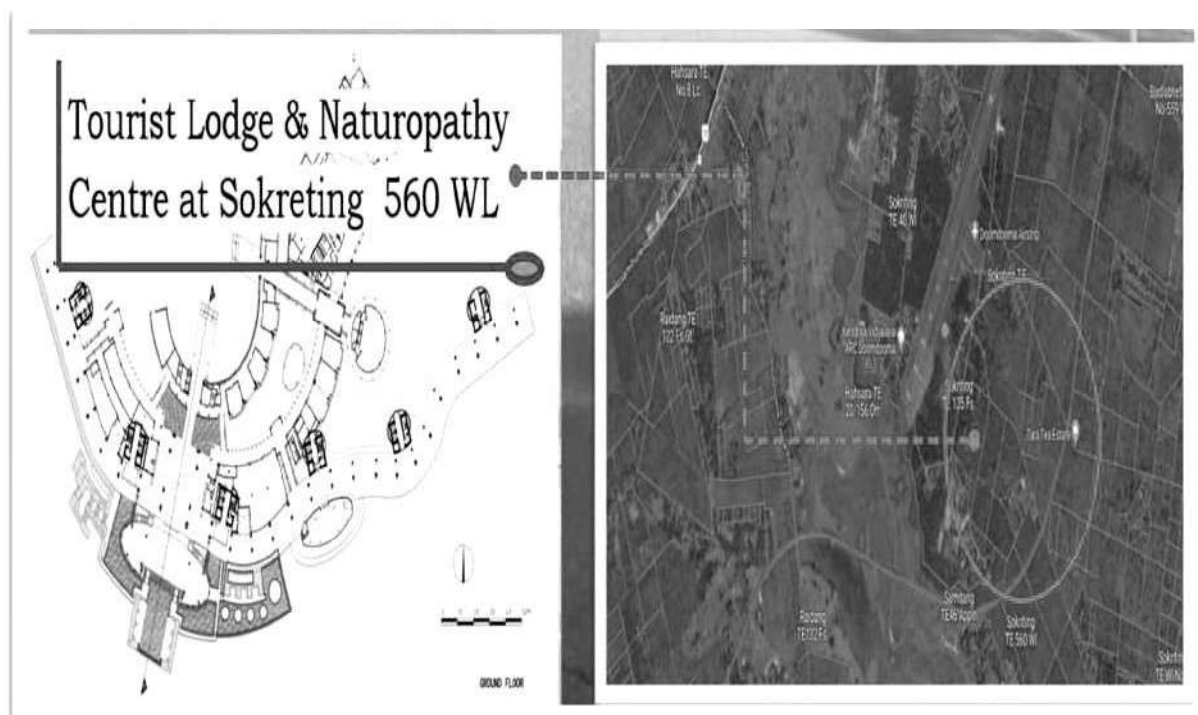
(5) Truck Stand: at Hahsara 15/12 NLR



(6) Cycle track: - at NH-15 from Rupai-Siding to Athengia village



(7) Tourist lodge & Naturopathy centre at Sokreting 560 WL



(8) Town Hall, Library & park: at existing dumping ground, Philobari road



(9) Effluent treatment plan and Faecal sludge Treatment plan at Bisakupi T.E WL No. 72



(10) Fuel Station: - Rupai to Namsai (NH- 15) & Doomdoo Bypass,
Gas Godown: - at Kaliyapani Gaon

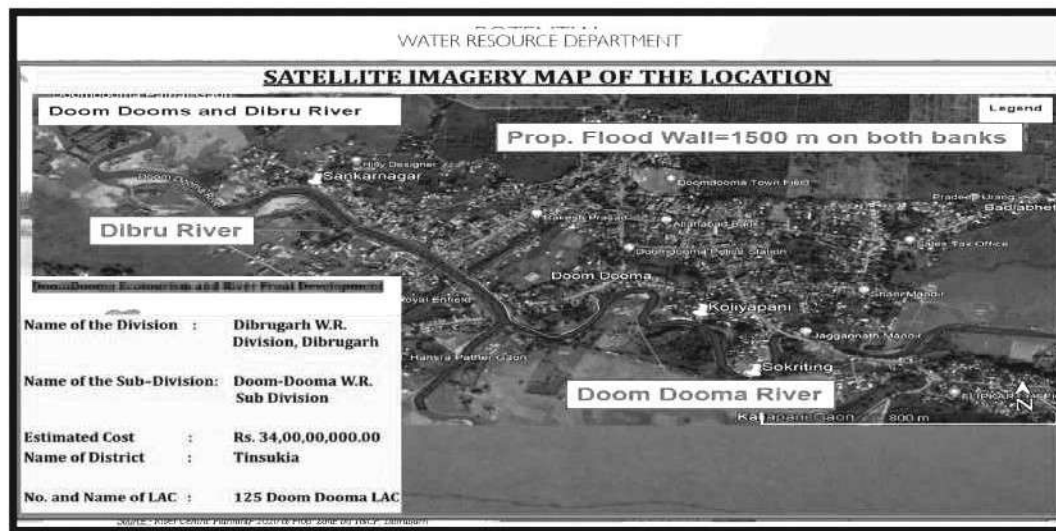
(11) Walking Track: - 1) Near Doomdoo College
2) At Girls High School Feild



(12) Tea Museum at Tara T.E 123 NLR



13. River front development of Doomdooma river by Water resource departmet.



14. Proposal for economical growth

- Organic farming
- Promotion of local handicraft and handloom works
- Food processing
- Promotion of cash crop in rural areas.
- Agricultural Credit Societies.
- Provision of hut/shed for weekly market.

15. Vending Zone. (1) Near Railway Crossing (2) Thana Road

9.4 Indicative Sources of Fund

The ULB & concerned line departments will submit the DPR's to their respective departments for sanctioning fund from State & Central Government under various schemes like NLCPR, NEC, 10% pool fund etc. The ULB's can also adopt the policy of Private Public Partnership (PPP) mode for raising the fund for a few remunerative projects.

TABLE: - 43 Tentative project cost of proposals for Doomdooma master plan

Sl.No.	Name of Scheme	Estimated cost (in Lakhs)	As per the survey
1	Widening and improvement of roads	--	
a	Street lights	100.00	
b	Demarcation of notified parking area.	100.00	
2	Improvement of existing market situated at Doomdooma into a well-planned, people friendly business hub.	500.00	
3	Construction of a Tourist lodge.	500.00	
4	Construction of a Town Hall, library and park	1500.00	

5	Improvement of existing traffic signal points and setting up new ones.	200.00	
6	Improvement of existing ASTC bus station and public bus stand.	2000.00	
7	Construction of Vendor and Hawker market.	500.00	
8	Construction of truck stand and logistic hub.	1000.00	
9	Improvement of existing hospital and dispensaries.	800.00	Jt. Dir of Health Services
10	Development and Construction of playground, Indoor stadium, parks and swimming pool.	3000.00	
11	System of regular collection and disposal of garbage in the master plan area by the concerned authority and scheme for Solid waste Management system as per waste management Rule, 2016.	5000.00	
12	Water supply scheme.		PHE
13	Proposal for fuel filling station and LPG go down.		
14	Cycle Track		
15	Walking Track	200.00	
16	Flyover / Railway Over Bridge.	7500.00	
17	Naturopathy Centre.	500.00	
18	Tea Museum.	1000.00	
19	Welcome Gate at the entry point of Doomdooma depicting as a Tea town.	50.00	
20	River Front Development at Doomdooma river by Water resource Department	5000.00	WRD
21	Faecal Sludge Treatment Plant and Effluent Treatment Plant.	3000.00	
22	Children Home.	200.00	
23	Improvement and development of existing cremation and burial ground.	500.00	
24	Protection and preservation of all natural channels flowing in the master plan area.	1000.00	WRD
25	Bridge over Doomdooma river connecting old A.T. road.	7500.00	
26	Proposal for construction of Guest house.	500.00	
27	Proposal for Administrative block & park.	4500.00	
28	Construction of footpath scientifically for pedestrians to reduce traffic congestion on main road.	500.00	
29	Proposal of Public Toilet in strategic locations of the town.	50.00	
30	Installation of huge National Flag	75.00	
31	Selfie point	50.00	
32	Preparation of drainage master plan and its execution	5000.00	
	Total Amount (Rs)	52325.00	

CHAPTER- 10**10. DISASTER PLAN****10.1 Hazards Specific Proneness in Doomdoooma:****➤ Earthquake: -**

As per the latest seismic zoning map of India, the Doomdoooma region falls under High-Risk Zone- V, where a maximum intensity of IX can be expected.

➤ Flood: -

Even Doomdoooma town is also facing urban flooding in many localities due to lack of proper drainage system.

➤ Soil Erosion: -

The soil erosion is major threat to many areas due to the Doomdoooma river in some parts of the master plan area.

➤ Fires: -

The fire takes places in Doomdoooma due to short circuit in commercial areas, thatched house. Mainly fire takes place from March to April when the climate remains very dry.

➤ Cyclone: -

In Doomdoooma cases related to low density cyclone occurred in some places.

10.2 Need for Disaster Management

Data on disaster occurrence, its effect upon people and its cost to countries, are primary inputs to analyses the temporal and geographical trends in disaster impact. Disaster losses, provide the basis for identifying where, and to what extent, the potentially negative outcomes embedded in the concept of risk is realized. They help to understand where, and to whom, disaster risk becomes impact. They also provide the basis for risk assessment processes, a departing point for the application of disaster reduction measures.

Development cannot be sustainable unless disaster mitigation is built into development process. Investments in mitigation are more cost effective than expenditure on relief and rehabilitation. Prevention and mitigation contribute to lasting improvement in safety and are essential to the integrated disaster management system. Disaster response alone is not sufficient as it yields only temporary results at a very high cost. So, emphasis must be on Disaster prevention, mitigation and preparedness, which help in achieving objectivity of vulnerability reduction.

As per Section 40 of Disaster Management Act, 2005 that every department of the State Government shall prepare a Disaster Management Plan.

10.3 Importance of putting Disaster Management Plans in Place

Disasters are events that have a huge impact on humans and/or the environment. Disasters require Government intervention. They are not always unpredictable. Floods take place in valleys and flood plains, droughts in areas with unstable and low rainfall, and oil spills happen in shipping lanes. This predictability provides opportunities to plan for, prevent and to lessen the impact of disasters.

Disasters arise from both natural and human causes, and the responses needed could stretch community and government capacity to the limit. Disasters are inevitable although we do not always know when and where they will happen. But their worst effects can be partially or completely prevented by preparation, early warning, and swift, decisive responses.

Disaster management aims to reduce the occurrence of disasters and to reduce the impact of those that cannot be prevented. The Government White paper and Act on Disaster Management define the roles of Local Authorities as well as Provincial and National government in disaster management.

North East Region has been vulnerable to many natural and manmade disasters in the past. We can notice that most of the disasters have occurred within the last two decades, and the frequency, intensity and magnitude of the disasters are ever increasing.

10.4 Plan Objectives

The objectives of the Disaster Management Plan are:

- Disaster management in the routine affairs of the office
- To provide technical and humanitarian assistance during disaster
- Prompt and effective discharge of office responsibilities during disaster situations
- Ensuring safety of office infrastructure, human resource and other assets
- Ensuring safety of the beneficiaries and others
- Speedy restoration after disaster impact
- To conduct trainings and capacity building for effective prevention, mitigation and response for disasters.
- To undertake information, education and communication activities to create awareness among the communities and the general public.

10.5 Likely geographical extent and magnitude / severity

- 1) The master plan area is situated on a flat land. Doomdoooma is severely prone to flood. Moreover, some parts of Doomdoooma town is located in very low lying area with poor drainage system with unplanned development, so there are every chances of flash flood due to heavy rainfall. Such flash floods have been experienced during last five years.
- 2) Assam as a whole is within the Zone V of earthquake zone. Especially Doomdoooma has witnessed a devastating earthquake in 1950. So, it can be said that geographically and geologically Doomdoooma is situated in a very hazards prone zone.
- 3) Chances of landslide are comparatively less in this region. But fire can break out in the congested residential, commercial areas and market of the town anytime during lean season. The region has faced cyclones several times in the past. Road accident, rail accident, etc. can occur at any time. Of course, riot is not so common in this region.

10.6 Disaster Management Cycle

In multi-hazard response plan, the disaster management cycle has a significant role to play. The four stages of disaster cycle have their own importance in terms of their implementation during, after and before the occurrence of any disaster.

Pre disaster activities

1. Policy development and National, State, district, local level disaster organization formation
2. Vulnerability and capacity assessment.
3. Prevention and mitigation
4. Preparedness, planning and training

Post disaster activities

1. Policy development and National, State, district, local level disaster organization formation
2. Vulnerability and capacity assessment.
3. Prevention and mitigation
4. Preparedness, planning and training



During Emergency activities

1. Warning (beginning before the actual event)
2. Evacuation, search and rescue
3. Emergency assistance (relief) – food, water, shelter, medical aid

Post disaster activities

1. Repair and restoration of life lines (power, telecommunications, water transportation)
2. Reconstruction and rehabilitation.

10.7 Formation of Doomdooma Disaster Management Cell (DDMC)

So, the Master Plan recommends for formation of a Doomdooma Disaster Management Cell (DDMC) in the office of the Chairman, Doomdooma Municipal Board, as per Section 40 of Disaster Management Act, 2005.

The DDMC has to be constituted with the following functionaries are Chairman/Chairperson of the municipal board as the Chairman of the cell, Vice Chairman of the municipal board as the Co-Chairman of the cell, Chief Executive officer of the municipal board as the Executive Officer and the members are SDO (Civil), Health, Roads, Building, Industries (Refinery), other relevant department and the Assistant/Junior Engineer of the municipal board as Nodal Officer.

The DDMC will give emphasis towards the preparation of Doomdooma Disaster Management Plan. The plan also recommends that the DDMC cell to co-ordinate during emergency with the District Disaster Management Authority (DDMA) located at the Head-Quarter of the District. The DDMC Cell will provide all the available resources and manpower for Disaster Management. This Cell will mobilize the service of technical personnel for the damage survey work to help the District Administration.

The DDMC must meet at least once in six months i.e., in the month of March and September before the Disaster Season (Flood & Cyclone) of Doomdooma town under the chairmanship of the Chairman, Doomdooma Municipal Board & to update the plan. For this one month's prior notice should be given to all concerned departments before convening the meeting. Chairman should review the work of DDMC. An emergency meeting will hold whenever information is received regarding calamity.

10.8 Standard Operation Procedure (SOP)

The Master Plan recommends the DDMC for formulation of Standard Operation Procedure (SOP) for automatic response of the members during disaster.

- Written guideline that precisely defines how operations are to be carried out.
- An organizational directive that establishes a standard course of action.
- Written guidelines that explain what is expected and required of the personnel.
- Standardization of activities: -
 - Identify planned and agreed upon roles & actions.
 - Promotes coordination and communication amongst personnel.
 - Simplify decision making during potentially stressful conditions.

Proper implementation of Assam Notified Urban Area Building Rules – 2014 (ANUABR) & Sensitization among stake holders engaged for construction work / owners to use disaster resistant technologies

10.9 Rainwater harvesting

Doomdooa Zone has experienced heavy rainfall during summer season due to the south-western monsoon that leads to artificial floods not only in the plan area. So, the plan recommends adoption of rainwater harvesting system in construction activities that will reduce the volume of artificial floods in the master plan area and also help to maintain the ground water level.

10.9.1 Do's & Don'ts during

a) EARTHQUAKE



b) FIRE



ANNEXURE-I

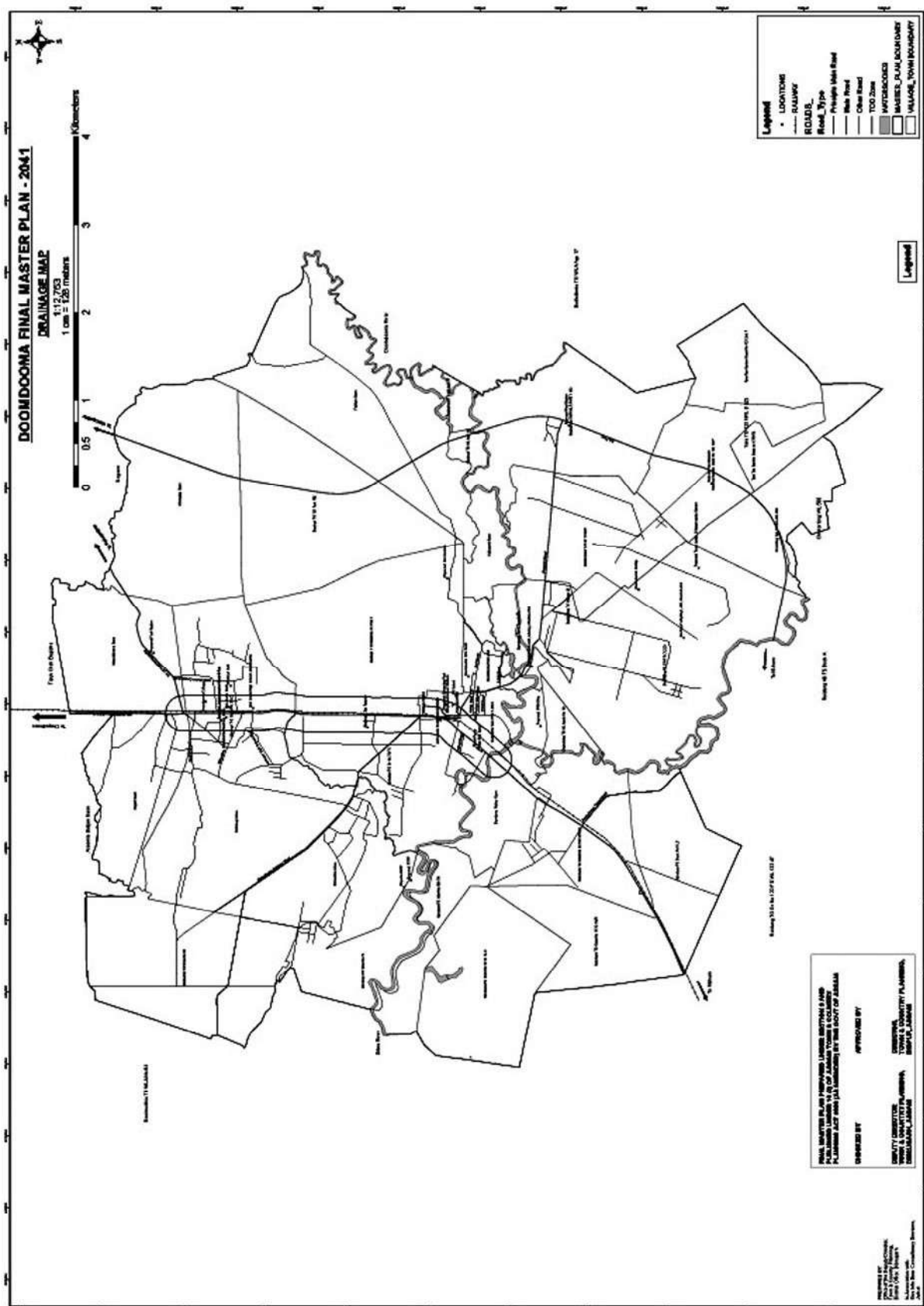
Table- 44
Actionable points for various line departments

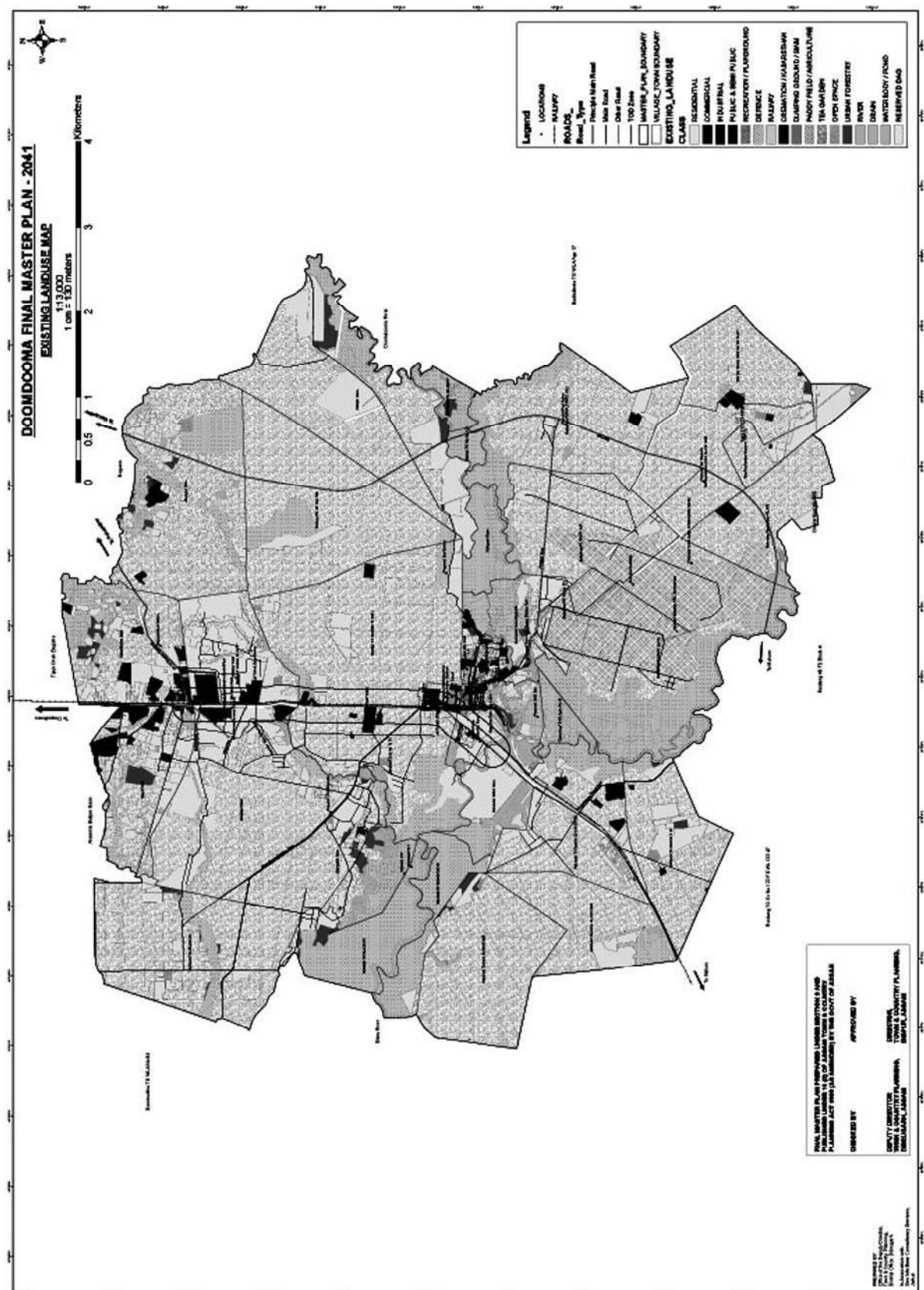
Sl. No.	Name of line Department/Agency/	Proposal	Action to be under taken towards implementing proposal
1	Doomdooma Municipal Board	Solid Waste Management, Improvement of existing market, Construction of vendor & Hawker Market, Public Bus Stand & Parking, Road signage in roads and in accident prone area, Street Furniture, Children Park, Fuel station & Gas station, Faecal Sludge Treatment Plant, Effluent Treatment Plant, Cremation & Burial grounds, Improvement of existing traffic signal points and setting up new ones, Truck stand and logistic hub, Selfie point	Line department shall prepare concept paper / DPR whichever is applicable as per directive of the government for consideration of funding under 10% pool fund, NLCP, NEC, State Finance Commission, CSR Fund of Pvt. Sector etc. in a phased manner during the Master Plan period i.e. up to 2041. A few selected schemes like housing colony can be considered under PPP mode.
2	Public Works Department	Footpath & cycle Track, Welcome Gate, Widening and improvement of Road, Flyover, Walking track, Town Hall, Auditorium, Library, Bridge over Doomdooma river connecting old A.T. road, Proposal for construction of Guest house, Proposal for Administrative block & park, Installation of huge National Flag,	
3	APDCL & Doomdooma Municipal Board	Improvement of street lighting	
4	Public Administration and Doomdooma Municipal Board	Construction of Auditorium & Library	

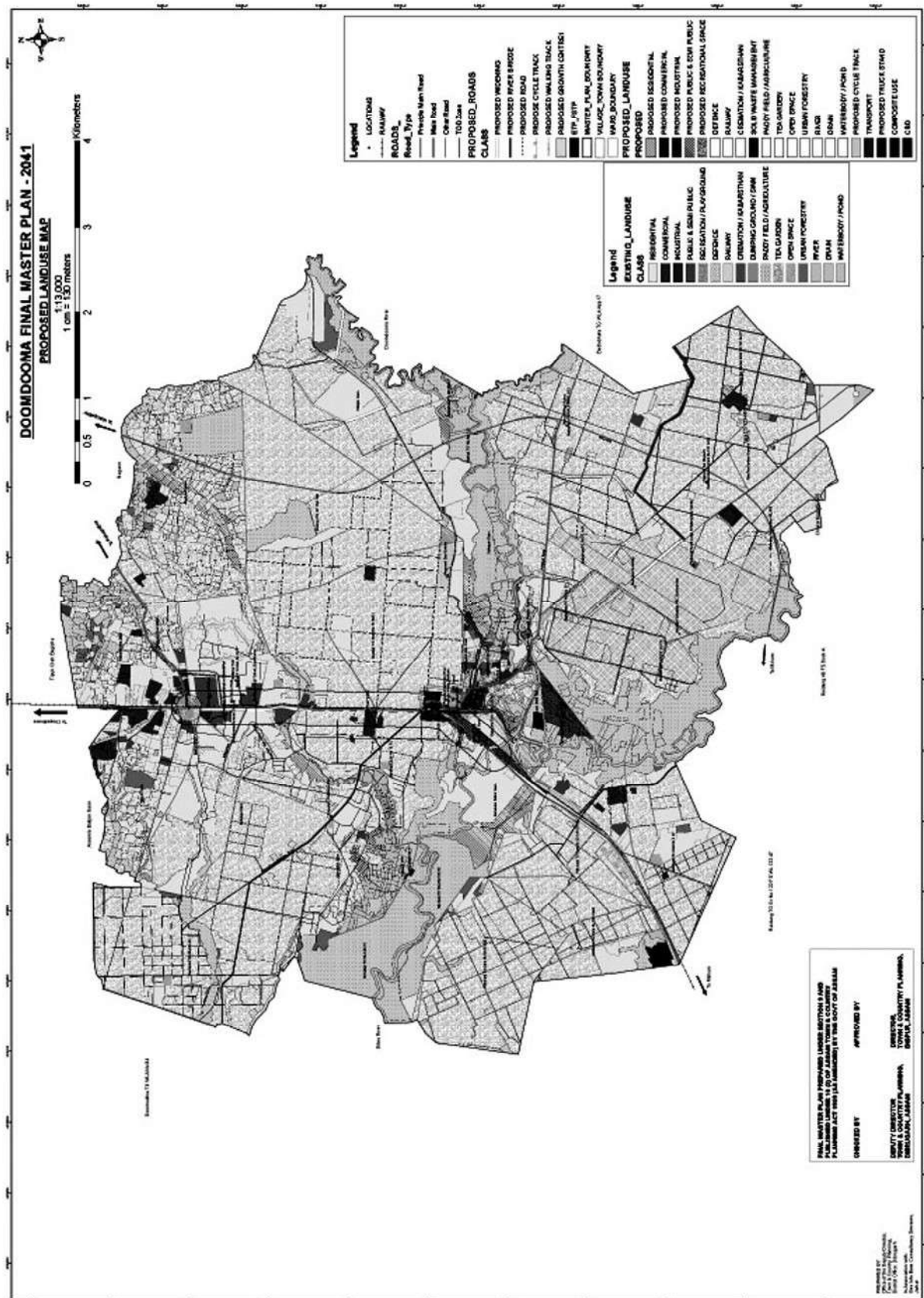
5	Doomdooma Municipal Board and Town & Country Planning Assam	Preparation of drainage master plan and its execution.	
6	Doomdooma Municipal Board and Public Health Engineering Department	Public toilet	
7	PHE Department & Assam Urban Water Supply and Sewerage Board	Water Supply Scheme,	
8	Education Department, NGO and Private Agency	Education Facilities	
9	Health Department, NGO and Private Agency	Improvement of existing hospital and dispensaries, Naturopathy centre	
10	Sports & Youth Welfare Department & Sports Association	Development of playground, construction of stadium, Swimming Pool	
11	Social Forestry, Doomdooma Municipal Board, Public Administration and NGO	Preservation of Green belt	
12	Social Forestry Department	Roadside Plantation & Urban Afforestation	
13	Agriculture Department	Urban Agriculture & Organic Farming	
14	Water Resource Department	River front development, Protection & preservation of all natural channels, River bridge on Doomdooma river	
15	Railway Department	Railway Over Bridge	
16	Social Welfare	Children Home	
17	Tourism	Tea Museum, Construction of Tourist Lodge,	
18	Emergency & Fire service	Fire hydrant	

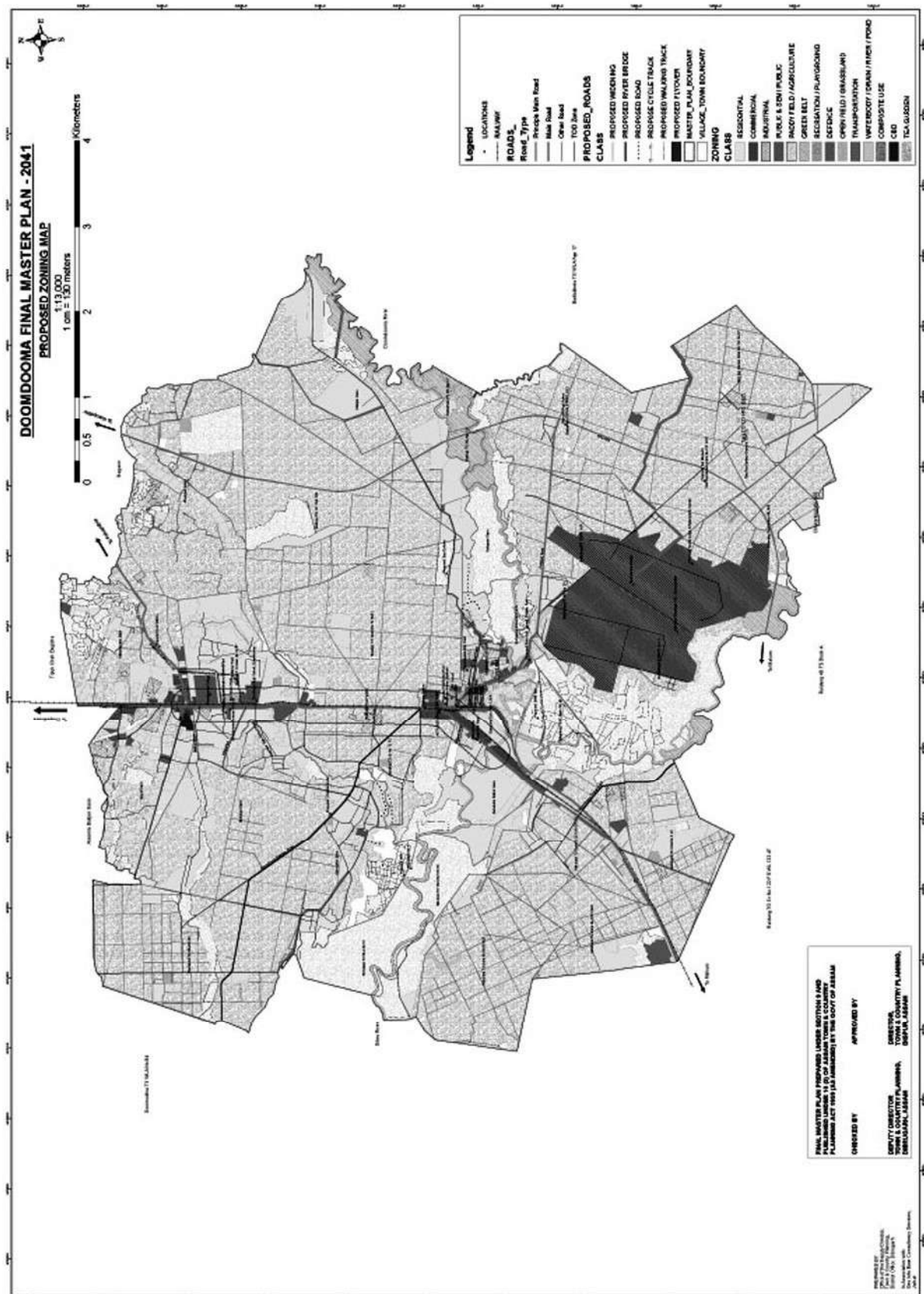














ABBREVIATIONS

ANUABR	Assam Notified Urban Area Building Rules – 2014
AUW&SB	Assam Urban Water & Sewerage Board
A.R & T.C	Assam Railways & Trading Company
CBD	Central Business District
DMPA	Doomdooma Master Plan Area
DDMA	District Disaster Management Authority
DPR	Detail Project Report
DDMC	Doomdooma Disaster Management Cell
PPP	Public Private Partnership
SOP	Standard Operational Procedure
SDO	Sub Divisional Officer
URDPFI	Urban and Regional Development Plans Formulation and Implementation
CPHEEO	Central Public Health and Environmental Engineering Organisation